BERKELEY LAB
Nuclear Science Division

Call for Proposals for the use of the LBL 88-Inch Cyclotron

For the period of March 30, 1998 through August 31, 1998

10 copies must be received by Tuesday, February 17, 1998

PAC Timetable:

Proposals due at LBL:	Tuesday, February 17, 1998
PAC meeting:	March 20-21, 1998
PAC-31 Scheduling Begins:	March 30, 1998
Summer Shutdown (tentative)	June 15 - July 9, 1998

PAC Composition:

J. Hardy, Chair	Texas A&M	V. Viola	Indiana University
W. Nazarewicz	Univ. of Tennessee	S. Yates	Univ. of Kentucky
M. Riley	Florida State University		

Please send 10 copies of your completed proposals to:

Dr. Peggy McMahan
MS 88-101
Lawrence Berkeley Laboratory
Berkeley, CA 94720

If you have any questions, you may direct them to Peggy at (510) 486-5980 or by E-mail to MCMAHAN@LBL.gov.

General Notes:

All proposals will be reviewed by Cyclotron safety and operations staff. Any significant safety or operational issues will be discussed with the Spokesperson and if warranted, will be discussed with the PAC Committee. New experimental setups and those significantly changed may be subject to review by the Technical Safety Subcommittee before scheduling is authorized by the Program Head for the Cyclotron.

If you have any PAC approved experiments from the last period, be sure to provide a brief status report on them for the PAC. Also it is very useful for Cyclotron management to have copies of preprints or reprints that come out of Cyclotron experiments, both to respond to questions from the PAC as well as from DOE. Please send to Peggy at the above address.

All participants must meet DOE, Laboratory, and Cyclotron requirements for training, etc.

A list of beams available at the Cyclotron is attached. Other beams can be developed. Requests for separated isotopes, unless provided by the user, require justification on the Proposal form and approval by the Cyclotron Head. Experimenters may be asked to assume the cost of separated isotopes.

Spokespersons with carryover time from PAC-30 will be notified of how much carryover time they have for which experiments so they can consider that in their PAC-31 plans. It is not necessary to resubmit a proposal that was carried over from PAC-30.

Commissioning of the Berkeley Gas-Filled Spectrometer (BGS) will take place in March, and the BGS should be available for experiments during the PAC-31 scheduling period. The Chalk River 8-π array is being installed in Cave 4c and will be ready for experiments beginning in March. Information is attached about these two detector systems. For further information regarding the BGS contact Ken Gregorich (KEGregorich@lbl.gov) and regarding the 8-π Spectrometer, contact David Ward (Wardd@lbl.gov).

I-Yang Lee
Low Energy Program Head

Claude Lyneis
Program Head, 88" Cyclotron

Attachments:
Cyclotron Beam List
PAC Request Form
BGS/8-π Description

The PAC-31 Call and forms are available online.

If you are at LBL and have a Macintosh, you can copy them using Appleshare (*Bridged Subnet Zone, Peggy McMahan's Macintosh, PAC 31Forms* folder).

Copies of this call and the PAC 31 Form in Macintosh MS Word format or PDF format can be downloaded from the World Wide Web beginning Friday, Jan. 16, 1998. The 88-Inch Cyclotron Home Page is http://user88.lbl.gov/.

Please note: In contrast to recent submissions, it will <u>not</u> be possible to accept late proposals this period, because of the travel schedule of the User Support staff.

The 8-π Spectrometer

The 8π Spectrometer from Chalk River Laboratory is being installed in Cave 4c and if all goes well, will be available for experiments in March. This instrument features 1) a spherical shell of 72 BGO scintillator detectors and 2) an array of 20 high-purity Ge detectors (≈25% efficient) with BGO suppresion shields. Auxiliary equipment will be available such as 1) a CsI ball with photodiode readout (50 elements) and 2) a computer controlled recoil distance apparatus.

For further information on the 8π Spectrometer, contact David Ward:

E-mail: Wardd@lbl.gov
Phone: 510-486-6193
Fax: 510-486-7983

The Berkeley Gas-Filled Spectrometer (BGS)

The BGS, a magnetic separator designed for in-flight separation of complete fusion reaction products and for studies of transfer reactions, is being installed in Cave 1 at the 88-Inch Cyclotron. Commissioning will commence in February or March. The spectrometer has been designed for investigations of alpha-, proton-emitting and spontaneously fissioning nuclei far from stability with halflives as short as microseconds and formation cross-sections down to picobarn region.

For technical information and progress updates, please see the BGS web page, http://bgsmc01.lbl.gov/

For further information of the BGS, contact Ken Gregorich:

E-mail: KEGregorich@lbl.gov
Phone: 510-486-7860
Fax: 510-486-7983